

**ABSTRACT**

The present invention leverages randomly generated areas with random attributes from two-dimensional media forms to embed information relating to a media's ownership  
5 *and/or* distribution source. This provides a means to establish a media's source despite attacks. By providing embedded user-unique identification, media can enable detection for identifying the source of copied media without the embedded information substantially interfering with the intended purpose of the media itself. In one instance of the present invention, media is transformed into a two-dimensional media form with  
10 randomly generated areas having a subset of overlapping areas. User-unique keys are then utilized to determine attributes for each of the areas. This permits creation of statistically unique locations for each user key. The statistical qualities are biased and utilized to determine a logarithmic magnitude watermark value to embed in the media at that location. Detection is performed by utilizing a statistical correlation method to  
15 determine a user.